DOCUMENT RESUME

ED 247 319 TM 840 542

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TITLE Assessing Attitudes Toward Urban Teaching: Concerns and Suggestions.
PUB DATE 31 Jan 84
NOTE 13p.; Paper presented at the Annual Meeting of the Association of Teacher Educators (New Orleans, LA, January 31, 1984).
PUB TYPE Speeches/Conference Papers (150) -- Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Attitude Measures; Data Collection; Elementary Secondary Education; Measurement Techniques; *Teacher Attitudes; *Testing; Testing Problems; Test Validity; *Urban Teaching
IDENTIFIERS *Data Interpretation

ABSTRACT

This paper deals with six sets of concerns and suggestions that arise as attitudes toward urban teaching are assessed. The first set arises from the complexity of measuring attitudes. It is strongly recommended that critiques of attitude data be based on plausible rival hypotheses. The second set involves the identification of beliefs related to a specific attitude. The operational definition of an attitude should be re-examined periodically in terms of other potentially influential beliefs. Two more sets of concerns are related to making supplementary observations in order to interpret responses, and locally validating an instrument. Additional observations should include some in-depth information from a few respondents in each survey group. A fifth set of concerns is related to criteria for determing when measurements have practical significance. The last set involves the search for subtle differences in the data collected. (BW)

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ASSESSING ATTITUDES TOWARD URBAN TEACHING
Concerns and Suggestions

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This paper was prepared for presentation at the annual conference of the Association of Teacher Educators, New Orleans, January 31, 1984.

Information used in this paper was collected while the author worked on the project, "Providing Positive Urban Field Experiences for Teacher Education Students," conducted collaboratively by Akron Public Schools and Kent State University and funded by a ECIA Chapter 2 grant from the Ohio Department of Education. Only the author of the paper is accountable for views expressed in the paper.

Over the years concern has been expressed about the large number of preservice teachers who unfavorably view teaching in an urban setting. In a recent survey of 473 freshmen and sophomores in a teacher education program, Book, Byers, and Freeman (1983) found that only 4% of them indicated that they would seek a teaching position in an urban community. Two thirds of those who had attended a suburban high school intended to seek a teaching position in a suburban community, most of those from a rural community intended to teach in a rural community, but only one fourth of those from an urban high school were going to look for an urban teaching position. More than half of those 21 students who intended to seek a position in an urban community were from an urban high school.

This reluctance to seek an urban teaching position poses a problem for urban educators as the challenge to provide more effective instruction in urban schools becomes more difficult. In December 1974 the State Board of Education in Ohio adopted Standards for Colleges or Universities Preparing Teachers. Under these standards, which include major revisions of previous standards, all teachers are to be prepared to teach in urban and non-urban schools. The preparation must include field-based experiences in urban and non-urban settings. The Ohio Department of Education, teacher education institutions, and schools have been working to help preservice teachers view urban teaching more favorably, or at least less unfavorably. This paper deals with six sets of concerns and suggestions that arise as attitudes toward urban teaching are assessed.

The first set of concerns arises from the complexity of measuring attitudes. The second set involves the identification of beliefs related to a specific attitude. Two sets of concerns are related to making supplementary observations in order to interpret responses to an attitude instrument and validating an instrument in a local situation before using it in program evaluation. A fifth set of concerns is related to criteria for determining when measurements have practical significance. The last set involves the search for subtle differences in the data collected.

Measurement of Attitudes is Complex

A review of relevant literature will show a lack of integration of knowledge about attitudes; a variety of different approaches to studying attitudes; and inconsistent, contradictory, and inconclusive findings. There is little agreement among definitions of an attitude, how attitudes develop, or what influence attitudes have on personal development (Fishbein & Ajzen, 1975). For example, in a review of research published between 1968 and 1970, Fishbein and Ajzen (1972) identified more than 500 different operations designed to measure attitude. Similar features are found when the more specific literature on attitudes in preservice teacher education field experiences is examined (Zeichner, 1979).

Yet, because there is general agreement that attitudes influence professional behavior, it is important to try to understand attitude development in teacher education. Those who are associated with

educating professionals need to do what they can to influence the development of attitudes which are associated with more professional behavior. There is much to be learned, but it will not be learned unless teacher educators grapple with the complexities of attitude measurement.

It is strongly recommended that critiques of attitude data in teacher education be based on plausible rival hypotheses as described by Cook and Campbell (1979) and Huck and Sandler (1979). The essence of this approach involves using verifiable data, in contrast to conceptual speculations, in order to choose among alternative explanations for observed behavior. For example, suppose a student teacher scores high on an attitude instrument which you interpret to mean that the student loves teaching. A colleague challenges your interpretation by saying that the student was simply trying to give responses which would make him or her more acceptable to you as an educator because of a strong need for social acceptance. It is recommended that you acknowledge the theoretical possibility and then look for objective data to support the theory. If there is no objective data to support it, then there is no reason to accept that explanation for the attitude score over your original interpretation.

Domains of Relevant Beliefs

An attitude is associated with a specific object or an event. Generalizing beyond a specific object or event can introduce an unmanageable amount of ambiguity in describing an individual's attitude accurately. For example, an individual's attitude toward education may be different from his or her attitude toward teaching, which may be different from the attitude toward teaching primary children, which may be different from the attitude toward teaching mathematics to primary children, which may be different from the attitude toward teaching mathematics to primary children in an urban setting, which may be different from the attitude toward teaching mathematics to primary children in Somecity Schools. This means that the degree to which an object or event is described in detail will influence what a person reports as his or her evaluation of the attributes associated with that object or event.

The content for the items in an instrument being developed by the author provides an illustration of some types of beliefs which are relevant for assessing attitudes toward urban teaching. The content is based on items used in a study conducted by Leslie, Levin and Wampler (1971). In that study six factors were identified to describe the attitudes of three groups of first-year teachers toward teaching in disadvantaged schools. Each group had different amounts of prior field experience in disadvantaged schools. Based on those factors, with some modification, items were written for the attitude instrument under development in six categories: classroom climate, teaching experience, self esteem or sense of confidence, relevance of training, expectations for students, and general attitudes. This covers a variety of beliefs which are related to attitudes toward teaching in an urban setting.

A typical attitude instrument is scored by analyzing the degree of agreement or disagreement indicated for the items. If a teacher agrees with the statement that children in an urban school cannot achieve as much as children in a nonurban school, this can be interpreted as an indication of unfavorableness toward urban teaching or an indication of favorableness toward nonurban teaching. If a teacher disagrees with the statement, interpretation is more difficult. Disagreement may indicate a belief that there is no relationship between type of setting and potential for achievement, and favorableness toward a particular type of setting is not influenced by the achievement capability. On the other hand, it may indicate a belief that nonurban children cannot achieve as much as urban children, which can be interpreted as an indication of unfavorableness toward nonurban teaching or favorableness toward urban teaching. If the degree of agreement or disagreement with a neutral statement of relationship can be compared with the degree of agreement or disagreement with a statement of relationship which favors one setting or the other, then the ambiguity in interpretation may be reduced.

In the instrument being developed 15 items state a general relationship between type of schooling and one of the factors noted above. With respect to urban versus nonurban settings, these 15 items are neutral. For each of these neutral items a positive version (favorable to urban teaching) and a negative version (favorable to nonurban teaching) were written. One form of the instrument contains the 15 neutral items, eight positive items, seven negative items, and two general items. A second form of the instrument contains the same 15 neutral items, the negative version of the eight positive items on the first form, the positive version of the seven negative items on the first form, and the same two general items.

The following sample of items illustrates the nature of the instrument:

> Every teacher should be prepared to teach in any type of community (urban, suburban, rural). (general, neutral)
>
> The amount that a teacher becomes demoralized is related to the type of school in which that teacher teaches (urban, suburban, rural). (self esteem, neutral)
>
> A beginning teacher is more likely to be successful in a nonurban school than in an urban school. (experience, negative)
>
> In an urban school the background and home environment of the students makes it more difficult to teach them than students in a nonurban school. (expectations for students, negative)
>
> Students in a nonurban classroom will have more learning problems which I am poorly prepared to handle than students in an urban classroom. (training, positive)

> It is more difficult to become accustomed to students in a nonurban school than in an urban school. (climate, positive)

Suppose a statement expresses a belief which is favorable toward urban teaching. If that belief is truly associated with favorableness toward urban teaching, then the opposite response should be given to the statement which associates the same belief with favorableness toward nonurban teaching. Data was collected from two groups of urban elementary teachers for the positive and negative versions of 15 urban teaching items. Only five of the items showed a statistically significant (.05 level) difference in the proportions of agreement for each version. If this result is replicated with other groups of teachers, then the beliefs contained in the five items may be central beliefs which influence attitudes toward urban teaching. The five items in the positive version are:

> In a nonurban school the background and home environment of the students makes it more difficult to teach them than students in an urban school. (Majority disagrees with positive version; majority agrees with negative version.)
>
> More students in a nonurban school require special classes than in an urban school. (Majority disagrees with both versions, but significantly more disagree with positive version.)
>
> As a teacher I will have less support from parents in a nonurban school than in an urban school. (Majority disagrees with positive version; majority agrees with negative version.)
>
> A beginning teacher is more likely to be successful in an urban school than in a nonurban school. (Majority disagrees with both versions, but significantly more disagree with positive version.)
>
> There are special skills that are required to be able to teach effectively in urban classrooms that are not required to teach effectively in nonurban classroom. (Majority disagrees with both versions, but significantly more disagree with positive version.)

The evidence for these five beliefs being linked to attitudes toward urban teaching would be strengthened if the two groups of teachers had responded to the correlated five neutral items in the same manner. For four of the correlated neutral items the majority in both groups disagreed with the item, with no significant differences between the proportions of disagreement. For the remaining item the majority of one group disagreed with the statement while the majority of the other group agreed with it. However, the difference between the proportions of disagreement was not statistically significant.

In addition to the literature on attitudes related to field experiences and the literature on urban teaching, other resources are available to assist one in developing a list of relevant beliefs in a particular situation. For example, Fuller and Bown's (1975) research on the process of becoming a teacher is a rich source of ideas about attitudes, as is Lortie's (1975) discussion of endemic uncertainties. The study of first year teachers conducted by Applegate, Flora, Johnston, Lasley, Mager, Newman, and Ryan (1977) is another valuable resource, as is the discussion of shaping affective aspects of teacher behavior in Smith, Cohen, and Pearl (1969). Other lines of research that are relevant include teachers' decision making (Borko, Cone, Russo, & Shavelson, 1979) and teachers' thinking (Clark & Yinger, 1979; Shavelson & Stern, 1981). These are but a few examples of resources available.

Interpreting Responses

Major methods for scaling responses to self-report measures include Thurstone's method of equal-appearing intervals, Likert's method of summated ratings, Osgood's semantic differential technique, Guttman's scalogram analysis, Coombs' unfolding technique and Lazarsfeld's latent structure analysis. It has been noted that the classic techniques of attitude measurement are respected but little-used procedures (Cacioppo, Harkins, & Petty, 1981). Many researchers have discovered that for research purposes a satisfactory measure of a person's evaluative reaction can be obtained by responding to a small number of rating scales for the attitude object.

Most measurement techniques are based on self-reports by individuals using paper-pencil instruments. Most single-response measures of attitude involve verbal judgments about some object or event. The object may be described in general or in some detail. Most frequently, some graphic scale with either continuous or discrete categories is used. Measures obtained in this manner are influenced by the description of the object or event and the description of the scale being used to make the judgment.

In the instrument being developed respondents use five categories of agreement to respond to each item (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). This is a typical response format for attitude instruments. However, review of responses on the completed questionnaires reveals several written comments that indicate that the respondent did not know how to deal with exceptions. If an individual can think of one exception to a statement, should that individual mark "disagree" even though in general there is agreement with the content of the statement? If a respondent has no information about the situation described in the item, should "neither agree nor disagree" be marked? Instructions to the respondent should provide guidelines for dealing with these and similar ambiguities.

The rating assigned to an item by a respondent may mean something different to the respondent and the researcher. For example, urban teachers were asked to use an agree-disagree scale for the item:

> More classwork at the university would help me more to teach better in an urban classroom than in a nonurban classroom.

A teacher marked this item as "neither agree nor disagree," but added the comment, "Attitude rather than univ. work is more imp." The comment suggests that the teacher disagrees or strongly disagrees with the item, but it will be scored as a neutral response.

This concern becomes important because of the relatively large amount of error variation obtained with an attitude instrument. It is so difficult to obtain data on attitudes that differentiate significantly among groups of persons that extra care should be taken to remove as much ambiguity in responses as possible.

Local Validation

Local factors influence attitude scores. Validating an attitude scale is an ongoing process. Many scales have adequate content validity but contain little information that allow assessment of other aspects of validity. Taking time to validate local uses of a program evaluation instrument is very important. This includes such things as constructing local norms and dealing with unique features of the field placements.

Consistency among multiple measures of an attitude raises confidence in the validity of the inferences which are based on those measures. Suppose that three measures of preservice teacher attitudes toward urban teaching are obtained. For example, cooperating teachers may rate their attitudes after observing performance in classrooms; preservice teachers may complete an appropriate self-report instrument; and university supervisors may rate preservice teachers' microteaching activities. If these three measures yield consistent results about preservice teacher attitudes toward urban teaching, then greater confidence can be placed in inferences drawn from those results than could be placed if only one of the measures had been used.

Search for Subtle Differences

Different scoring procedures applied to the same responses can lead to opposite conclusions. A typical data analysis procedure for an attitude instrument is to assign a numerical score to each item, sum the item scores to obtain a score for each respondent, and then to compare mean respondent scores for different groups of interest. For the instrument under development the following scores were assigned to each item response:

+2 = "SA" indicates favorable view toward urban teaching;
+1 = "A" indicates favorable view;
-1 = "A" indicates unfavorable view toward urban teaching;
-2 = "SA" indicates unfavorable view.

Responses indicating disagreement were not scored in this procedure to avoid the ambiguity described earlier. There were eight urban versus nonurban items that could be scored negatively and seven that could be

scored positively, so theoretically the respondent scores could range from -16 to +14.

For 28 urban elementary teachers who agreed that they were comfortable teaching in an urban setting the scores ranged from -6 to +2, while for 27 preservice elementary students the scores ranged from -5 to +3. Both groups tended to be unfavorable, but the range of the preservice student scores is slightly less unfavorable to urban teaching. The teachers had a mean score of -.68, while the preservice students had a mean score of -.56. On the average both groups received slightly unfavorable scores, with the mean for the preservice students slightly less unfavorable toward urban teaching than the mean for the teachers.

With both means close to zero, perhaps negative scores are counterbalancing positive scores. When only the items with a negative score were used, the mean negative score for the teachers was -1.43 and the mean negative score for the preservice students was -1.85. The mean negative score for the teachers is less unfavorable than the mean negative score for the preservice students. Thus, different scoring procedures for the same responses lead to opposite conclusions.

An obvious question for the instrument being developed is whether or not it discriminates between experienced urban teachers who are comfortable teaching in an urban setting and preservice teachers with little or no urban teaching experience. Data was collected for urban elementary teachers and elementary preservice students who were scheduled to complete an urban field experience. Comparison of the proportions of agreement between the two groups on each of the 15 urban versus nonurban items showed no significant differences at the .05 level. From this analysis it may be concluded that the instrument does not discriminate between the two groups.

However, for 12 of those 15 items an opinion was expressed by a greater proportion of teachers than preservice students, although the differences were statistically significant (.05 level) for only five of those items. For those who expressed an opinion, for each of the five significant items a greater proportion of teachers disagreed with the item, but as it has been noted above none of the differences were statistically significant at the .05 level. In each case the majority of those who expressed an opinion disagreed with the item. The items are:

> Students in an <u>urban</u> classroom will have more learning problems which I am poorly prepared to handle than students in a nonurban classroom. (A majority of the preservice students gave a strong response while a majority of the teachers gave a moderate response--the difference is statistically significant.)
>
> More classwork at the university would help me more to teach better in a <u>nonurban</u> classroom than in an urban classroom.

More students in a nonurban school require special classes than in an urban school.

Teaching in an urban school is more demoralizing than teaching in a nonurban school.

A beginning teacher is more likely to be successful in an urban school than in a nonurban school.

Also, there were significant differences between the two groups on three of the neutral items:

I have acquired materials and techniques which I can apply easily to any classroom in my teaching field. (A majority in both groups agreed with the item, but the proportion of teachers who agreed was significantly greater.)

For me the first few days of teaching in any classroom will be overwhelming. (A majority of preservice students agreed, while about half of the teachers agreed and half disagreed.)

The types of skills required to teach effectively are related to the type of classroom (urban, suburban, rural). (A majority of the preservice students agreed while a majority of the teachers disagreed.)

Responses to the first two items are consistent with the fact that the teachers had experience that the preservice students did not have. Responses to the third item are worth further investigation.

Practical Significance

It is important to distinguish between statistical significance and practical significance. Attempts must be made to discern what differences in professional behavior are associated with specific differences in attitude measurements. A statistically significant result in attitude measures for different groups may not justify program changes if there are no observable differences in professional behavior patterns between them.

Replication of findings is the essence of statistical interpretation. Statistical significance in an isolated situation has little explanatory power until a similar finding is replicated in a number of comparable situations. The implication for practice is that teacher educators should collect comparable data on attitudes over time for a number of groups.

Summary of Suggestions

Although there is much to be learned about attitudes and attitude measurement, there is nothing to be gained by regarding all attitude data as worthless or misleading simply because interpretation is so complex. It is strongly recommended that critiques of attitude data be based on plausible rival hypotheses.

Identification of beliefs related to an attitude is a complex task. It is suggested that the operational definition of an attitude be re-examined periodically in terms of other beliefs which may be influencing how favorably an individual views the object or event of interest.

Some in-depth information should be obtained from a few respondents in each group that completes an attitude instrument. This information can be used to discover different interpretations being made for the items in the instrument.

An attitude instrument should be validated in the local situation before data obtained with it are used for program evaluation.

Criteria should be established for determining when a measurement has practical significance.

Data should be scrutinized for subtle differences.

In closing, measuring attitudes is a complex but important task in field-based teacher eduction. Although there may be common plausible rival explanations for attitude scores, there is general agreement that attitudes influence professional behavior. If there are gaps in the relevant information which is needed to determine which explanations fit best, educators need to fill in the gaps rather than give up on the task.

RESOURCE MATERIALS

Measurement of Attitudes

Consult the following references for technical information or complete lists of relevant materials:

Anderson, S. B., Ball, S., Murphy, R. T., & Associates. (1977). Encyclopedia of Educational Evaluation. San Francisco: Jossey-Bass.

Bogden, R. C., & Biklen, S. K. (1982). Qualitative research for education: An introduction to theory and methods. Boston: Allyn & Bacon.

Buros, O. K. (Ed.). (1974). Tests in print II. Highland Park, N. J.: Gryphon Press.

Cook, T. B., & Campbell, D. T. (1979). Quasi-experimentation: Design & analysis issues for field settings. Chicago: Rand McNally.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, Mass.: Addison-Wesley.

Hersh, R. H., Hull, R., & Leighton, M. S. Student teaching. (1982). In H. E. Mitzel (Ed.), Encyclopedia of Educational Research (5th ed.). Riverside, N. J.: Macmillan.

Huck, S. W., & Sandler, H. M. (1979). Rival hypotheses: Alternative interpretations of data based conclusions. New York: Harper & Row.

Shaw, M. E., & Wright, J. M. (1967). Scales for the measurement of attitudes. New York: McGraw-Hill.

Domains of Relevant Beliefs

Consult the following references which can assist in the construction of an appropriate instrument or the evaluation of the content validity of an existing instrument:

Applegate, J. H., Flora, V. R., Johnston, J. M., Lasley, T. J., Mager, G. M., Newman, K. J., & Ryan, K. (1977). The first year teacher teacher study. Columbus: The Ohio State University.

Book, C., Byers, J., & Freeman, D. (1983). Student expectations and teacher education traditions with which we can and cannot live. Journal of Teacher Education, 34(1), 9-13.

Borko, H., Cone, R., Russo, N. A., & Shavelson, R. J. (1979). Teachers' decision making. In P. L. Peterson & H. J. Walberg (Eds.), Research on teaching: Concepts, findings, and implications. Berkeley, Calif.: McCutchan.

Clark, C. M., & Yinger, R. J. (1979). Teachers' thinking. In P. L. Peterson & H. J. Walberg (Eds.), Research on teaching: Concepts, findings, and implications. Berkeley, Calif.: McCutchan.

Fuller, F. F., & Bown, O. H. (1975). Becoming a teacher. In K. Ryan (Ed.), Teacher education (The 74th National Society for the Study of Education Yearbook, Part II). Chicago: University of Chicago Press.

Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago: University of Chicago Press.

Scott, H. J. (1978). Teacher education for urban teachers. Journal of Teacher Education, 29(5), 41-42.

Shavelson, R. J., & Stern, P. (1981). Research on teachers' pedagogical thoughts, judgments, decisions, and behavior. Review of Educational Research, 51, 455-498.

Smith, B. O., & Associates. (1969). Teachers for the real world. Washington, D. C.: American Association for Colleges of Teacher Education.

Zeichner, K. M. (1979, November). Myths and realities: Field-based experiences in pre-service teacher education. Paper presented at the annual meeting of the Midwest Educational Research Association, Milwaukee, WI.

Zeichner, K. M., & Tabachnick, B. R. (1981). Are the effects of university teacher education "washed out" by school experience? Journal of Teacher Education, 32(3), 7-11.